

Notice of Allowability

Application No.

09/923,975

Applicant(s)

CHAWARE ET AL.

Examiner

Art Unit

Baoquoc N. To

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/01/2007.
2. ☒ The allowed claim(s) is/are 3-6, 10-13, 15-27, 30-33, 37, 38, 41 and 46.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 03/04/2007.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. Claim 46 is amended in the amendment filed on 01/10/2007. Claims 3-6, 10-13, 15-27, 30-33, 35-42 and 46-47 are pending in this application.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dan C Hu, Reg. No. 40,025 on 03/01/2007.

Please amended the application as follow:

- 1.- 2. (Cancelled)
3. (Currently Amended) A method comprising:
 - presenting a user interface in a display of a test system;
 - receiving user selection of user-selectable elements in the user interface pertaining to environment information of a target database system to extract from the target database system, the environment information including at least a number of nodes of the target database system;
 - receiving, by the test system, the environment information extracted based on the user selection from the target database system, wherein the test system is separate from the target database system; ~~and~~
 - emulating the target database system in the test system using the received environment information;

generating an execution plan for a query based on an emulated database environment created by emulating the target database system; and
visually displaying steps of the execution plan in the user interface.

4. (Previously Presented) The method of claim 3, wherein presenting the user interface comprises presenting plural screens each containing at least a graphical user interface element that is user selectable.

5. (Original) The method of claim 4, wherein presenting the screens comprises presenting a screen containing graphical user interface elements selectable by a user to select, for extraction, one of environment information associated with an entire database in the target database system and environment information associated with tables referenced by a query.

6. (Previously Presented) The method of claim 3, wherein receiving user selection of the user-selectable elements comprises receiving user selection of user-selectable elements corresponding to types of environment information to extract from the target database system.

7. – 9. (Cancelled)

10. (Previously Presented) The method of claim 3, further comprising displaying the environment information in the user interface.

11. (Original) The method of claim 10, wherein presenting the user interface comprises providing a user-selectable element that when activated enables editing of the environment information.

12. (Previously Presented) The method of claim 3, further comprising storing the received environment information in plural files.

13. (Previously Presented) The method of claim 12, wherein presenting the user interface comprises presenting a user-selectable element that when activated causes the files to be combined.

14. (Cancelled)

15. (Previously Presented) The first system of claim 38, wherein the software is executable on the processor to export the environment information from the target database system.

16. (Previously Presented) The first system of claim 38, wherein the user interface comprises plural screens containing the user-selectable elements.

17. (Previously Presented) The first system of claim 16, wherein one of the plural screens contains a first user-selectable element to indicate extraction of environment information associated with a database of the target database system.

18. (Previously Presented) The first system of claim 17, wherein another one of the plural screens contains a second user-selectable element to indicate extraction of environment information associated with one or more tables associated with a query in the target database system.

19. (Previously Presented) The first system of claim 18, wherein the other one of the plural screens comprises a query selection element to select one or plural queries for which environment information is to be extracted.

20. (Previously Presented) The first system of claim 19, wherein the query selection element enables selection of the one or plural queries from a file.

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21. (Previously Presented) The first system of claim 19, wherein the query selection element enables selection of the one or more plural queries from a query capture database.

22. (Previously Presented) The first system of claim 38, wherein the user-selectable elements indicate one or more types of the environment information to export.

23. (Previously Presented) The first system of claim 22, wherein the environment information further comprises one or more of the following: statistics information, cost information, information pertaining to definition of relations, and samples of data demographics of access modules in the target database system.

24. (Previously Presented) The first system of claim 38, wherein the user-selectable elements comprise an element to enable editing of the environment information.

25. (Previously Presented) The first system of claim 24, wherein the user-selectable elements further comprise another element to undo editing of the environment information.

26. (Previously Presented) The first system of claim 24, wherein the software is executable to display the environment information in the display.

27. (Previously Presented) The first system of claim 38, wherein the software is executable to export the environment information from the target database system and subsequently to import the environment information to a test system.

28. – 29. (Cancelled)

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30. (Previously Presented) The article of claim 46, wherein the instructions when executed cause the first system to present the user interface by presenting plural screens having user-selectable elements.

31. (Previously Presented) The article of claim 30, wherein the instructions when executed cause the first system to receive activation of the user-selectable elements to select types of environment information to extract.

32. (Previously Presented) The method of claim 4, wherein receiving user selection of user-selectable elements comprises receiving user selection of graphical user interface elements selectable by a user to select, for extraction, environment information associated with tables referenced by a query.

33. (Previously Presented) The method of claim 3, wherein receiving the environment information further comprises receiving at least one of the following information: number of processors per node, statistics, and random samples pertaining to demographics of data stored in the target database system.

34. (Cancelled)

35. (Canceled)

36. (Canceled)

37. (Currently Amended) The method of claim ~~[[36]]~~ 3, wherein the emulated database environment comprises plural storage modules and plural access module processors to access, in parallel, respective storage modules,

wherein generating the execution plan comprises generating the execution plan for execution by the plural access module processors.

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38. (Currently Amended) A first system comprising:
a processor;
a display;
software executable on the processor to present a user interface in the display,
the user interface comprising user-selectable elements to indicate environment information to export from a target database system separate from the first system, the environment information including at least one of a number of nodes of the target database system, a number of processors per node, disk access speed, and network access speed; and
a controller to:
receive the environment information from the target database system;
emulate the target database system based on the environment information,
~~the controller to~~ generate an emulated database environment based on the emulating,
generate an execution plan for a query based on the emulated database environment, and
display steps of the execution plan in the display.

39. (Canceled)

40. (Canceled)

41. (Currently Amended) The first system of claim [[40]] 38, wherein the controller comprises plural software modules.

42. (Canceled)

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43. – 45. (Cancelled)

46. (Currently Amended) An article comprising at least one computer-readable storage medium containing instructions for execution by at least one processor ~~in that when executed cause~~ a first system to:

present a user interface;

receive user selection made in the user interface indicating environment information including at least a number of nodes of the target database system to extract from a target database system separate from the first system;

receive the environment information extracted based on the user selection from the target database system;

emulate the target database system based on the environment information; ~~and~~

generate an execution plan for a query based on an emulated database environment created by emulating the target database system; and

display steps of the execution plan in the user interface.

47. (Canceled)

48. (Cancelled)

Allowable Subject Matter

3. Claims 3-6, 10-13, 15-27, 30-33, 37-38, 41 and 46 are allowed over prior art made of record.

The following is an examiner's statement of reasons for allowance:

As to claim 3, the examiner agrees with the applicant argument that the combination of Chaudhuri and Toyoshima fail to teach suggest all elements of the claim.

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As noted above, neither Chaudhuri nor Toyoshima teaches or suggests receiving user selection pertaining to environment information of a target database system to extract from the target database system (where the environment information includes at least a number of nodes of the target database system), and emulating the target database system using the received environment information (which includes a number of nodes of the target database system) in conjunction with "presenting a user interface in a display of a test system; receiving, by the test system, the environment information extracted based on the user selection from the target database system, wherein the test system is separate from the target database system."

Claims 3-6, 10-13, 15-27, 30-33 and 37 are depended on claim 1; therefore, claims 3-6, 10-13, 15-27, 30-33 and 37-38 are allowed under the same reason.

Claim 38 is a system to perform the steps as claim 1; therefore, claim 38 is allowed under the same reason.

Claim 46 is an article comprising at least storage medium containing instructions by at least one processor to perform the method recited in claim 1; therefore, claim 46 is allowed under the same reason as to claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent

Frey, Jr. et al. (Patent No. 5,181,017) Patent date: 01/19/1993.

NPL.

Bourbakis, N.G. Emulating Human Visual Perception for Measuring Difference in Images Using an SPN Graph Approach, System and Sybermetric, Part B IEEE, Vol. 32, Issue. 2, April 2002, pages 191-201.

Quaterman et al. Notable Computer Networks, ACM Press, Vol. 29, Issue. 10, October 1996, pages 932-971.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041, or unofficial fax number for the purpose of discussion (571) 273-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) 273-8300 [Official Communication]

BQ To

March 4th, 2007


JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100